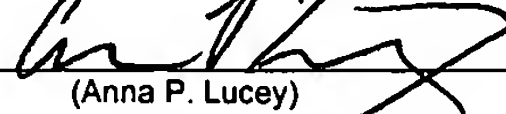


03-29-04

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 3/26/04 Signature: 
(Anna P. Lucey)

Docket No.: ESCL-P01-124
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Clarke et al.

Examiner: Not Yet Assigned

Application No.: 10/629933

Confirmation No.: 9050

Filed: July 29, 2003

Art Unit: 1645

For: MULTI-STEP METHOD FOR THE
DIFFERENTIATION OF INSULIN
POSITIVE, GLUCOSE RESPONSIVE
CELLS

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
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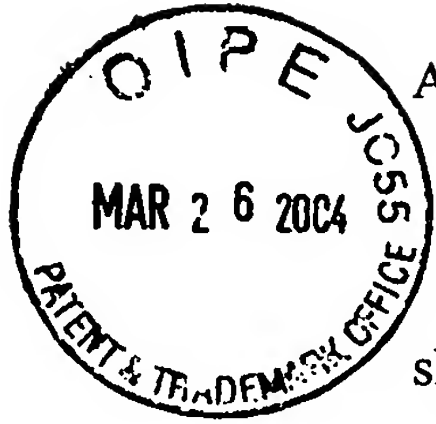
Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement was filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each foreign patent and non patent reference listed on the attached Form PTO/SB/08 has been included.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such (37 CFR 1.97(h)).



Application No.: 10/629933

Docket No.: ESCL-P01-124

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents should one or more of the documents be applied against the claims of the present application.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. ESCL-P01-124.

Dated: *March 26, 2004*

Respectfully submitted,

By 

Melissa S. Rones, Ph.D.

Registration No.: 54,408

ROPES & GRAY LLP

One International Place

Boston, Massachusetts 02110-2624

(617) 951-7000

(617) 951-7050 (Fax)

Attorneys/Agents For Applicant



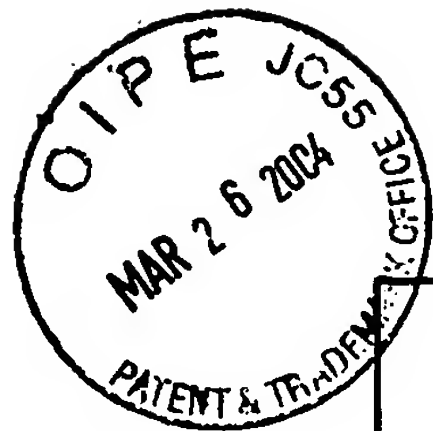
PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/629933
				Filing Date	July 29, 2003
				First Named Inventor	Diana Clarke
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	3	of	4	Attorney Docket Number	ESCL-P01-124

	BF	Mather, J.P. et al. Activins, Inhibins, and Follistatins: Further Thoughts on a Growing Family of Regulators. P.S.E.B.M. 215, 209-222 (1997).	
	BG	Nielsen, J.H. et al. Beta cell proliferation and growth factors. J. Mol. Med. 77, 62-66 (1999).	
	BH	Offield, M.F. et al. PDX-1 is required for pancreatic outgrowth and differentiation of the rostral duodenum. Development 122, 983-995 (1996).	
	BI	Peck, A.B. et al. Use of In Vitro-Generated, Stem Cell-Derived Islets to Cure Type 1 Diabetes. Ann. N.Y. Acad. Sci. 958, 59-68 (2002).	
	BJ	Perry, D. Patients' Voices: The Powerful Sound in the Stem Cell Debate. Science 287, 1423 (25 Feb. 2000).	
	BK	Peters, C.T. et al. A Glucagon-Like Peptide-1 Receptor Agonist and an Antagonist Modify Macronutrient Selection by Rats. J. Nutr. 131, 2164-2170 (2001).	
	BL	Petrovsky, N. et al. Prospects for the Prevention and Reversal of Type 1 Diabetes Mellitus. Drugs 62, 2617-2635 (2002).	
	BM	Phillips, D.J. and de Kretser, D.M. Follistatin: A Multifunctional Regulatory Protein. Frontiers Neuroendocrinol. 19, 287-322 (1998).	
	BN	Rosenberg, L. In Vivo Cell Transformation: Neogenesis of Beta Cells From Pancreatic Ductal Cells. Cell Transplant. 4(4), 371-383 (1995).	
	BO	Schneyer, A. et al. Follistatin-related protein (FSRP): a new member of the follistatin gene family. Mol. Cell. Endocrinol. 180, 33-38 (2001).	
	BP	Secchi, A. et al. Pancreas and Islet Transplantation: Current Progresses, Problems and Perspectives. Horm. Metab. Res. 29, 1-8 (1997).	
	BQ	Sutherland, D.E.R. Pancreas and Islet Cell Transplantation: Now and Then. Transplant. Proc. 28(4), 2131-2133 (Aug. 1996).	
	BR	Tourel, C. et al. Glucagon-Like Peptide-1 and Exendin-4 Stimulate Beta-Cell Neogenesis in Streptozotocin-Treated Newborn Rats Resulting in Persistently Improved Glucose Homeostasis at Adult Age. Diabetes 50, 1562-1570 (July 2001).	
	BS	Tourel, C. et al. Persistent Improvement of Type 2 Diabetes in the Goto-Kakizaki Rat Model by Expansion of the Beta-Cell Mass During the Prediabetic Period with Glucagon-Like Peptide-1 or Exendin-4. Diabetes 51, 1443-1452 (May 2002).	
	BT	Van Nest, G. et al. Effects of Dexamethasone and 5-Bromodeoxyuridine on Protein Synthesis and Secretion during in Vitro Pancreatic Development. Dev. Biol. 98, 295-303 (1983).	
	BU	Wankell, M. et al. The activin binding proteins follistatin and follistatin-related protein are differentially regulated in vitro and during cutaneous wound repair. J. Endocrinol. 171, 385-395 (2001).	
	BV	Weir, G.C. and Bonner-Weir, S. Scientific and Political Impediments to Successful Islet Transplantation. Diabetes 46(8), 1247-1256 (Aug. 1997).	

Examiner Signature		Date Considered	
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				Examiner Name	Not Yet Assigned
Sheet	1	of	4	Attorney Docket Number	ESCL-P01-124

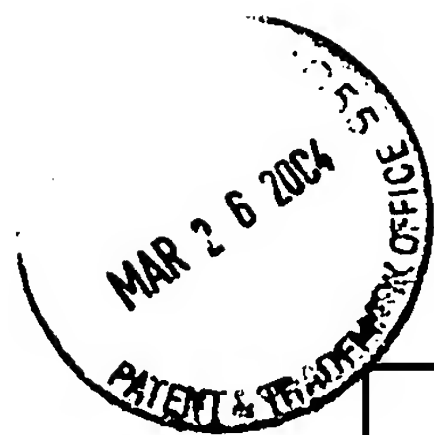
U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	6,326,201-B1	12-04-2001	Fung et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	AB	WO 95/18856-A1	07-13-1995	Harvard College		
	AC	WO 96/17924-A2	06-13-1996	Johns Hopkins University		
	AD	WO 00/47720-A2	08-17-2000	Ontogeny, Inc.		
	AE	WO 02/12452-A2	02-14-2002	Curis, Inc.		

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AF	Abraham, E.J. et al. Insulinotropic Hormone Glucagon-Like Peptide-1 Differentiation of Human Pancreatic Islet-Derived Progenitor Cells into Insulin-Producing Cells. Endocrinol 143(8), 3152-3161 (2002).	
	AG	Ahlgren, U. et al. The morphogenesis of the pancreatic mesenchyme is uncoupled from that of the pancreatic epithelium in IPF1/PDX1-deficient mice. Development 122, 1409-1416 (1996).	
	AH	Apelqvist, A. et al. Sonic hedgehog directs specialized mesoderm differentiation in the intestine and pancreas. Curr. Biol. 7, 801-804 (1997).	
	AI	Aziz, A. and Anderson, G.H. Exendin-4, a GLP-1 Receptor Agonist, Modulates the Effect of Macronutrients on Food Intake by Rats. J. Nutr. 132, 990-995 (2002).	
	AJ	Bonner-Weir, S. et al. A Second Pathway for Regeneration of Adult Exocrine and Endocrine Pancreas. Diabetes 42, 1715-1720 (Dec. 1993).	
	AK	Bosco, D. et al. Homologous but Not Heterologous Contact Increases the Insulin Secretion of Individual Pancreatic B-Cells. Exp. Cell Res. 184, 72-80 (1989).	
	AL	de Kretser, D.M. et al. Inhibins, activins and follistatin in reproduction. Human Reprod. Update 8(6), 529-541 (2002).	
	AM	Dell, G. et al. Regulation of a promoter from the mouse insulin like growth factor II gene by glucocorticoids. FEBS Letters 419, 161-165 (1997).	
	AN	Doyle, M.E. and Egan, J.M. Glucagon-Like Peptide-1. Recent Prog. Horm. Res. 56, 377-399 (2001).	

Examiner Signature		Date Considered	
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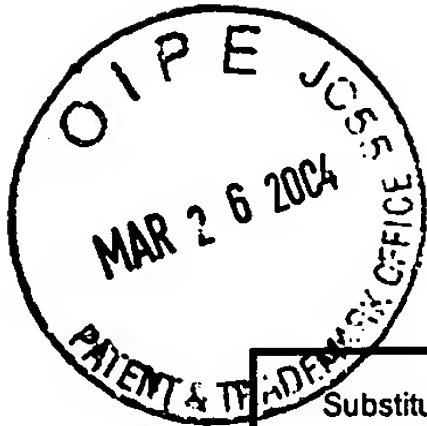


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				Filing Date	July 29, 2003
				First Named Inventor	Diana Clarke
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	2	of	4	Attorney Docket Number	ESCL-P01-124

	AO	Edlund, H. Transcribing Pancreas. Diabetes 47, 1817-1823 (Dec. 1998).	
	AP	Edlund, H. Developmental Biology of the Pancreas. Diabetes 50 (Supp.1), S5-S9 (Feb. 2001).	
	AQ	Egan, J.M. et al. The Insulinotropic Effect of Acute Exendin-4 Administered to Humans: Comparison of Nondiabetic State to Type 2 Diabetes. J. Clin. Endocrinol. Metab. 87(3), 1282-1290 (2002).	
	AR	Elghazi, L. et al. Role for FGR2IIIb-mediated signals in controlling pancreatic endocrine progenitor cell proliferation. PNAS 99(6), 3884-3889 (19 March 2002).	
	AS	Fernandes, A. et al. Differentiation of New Insulin-Producing Cells is Induced by Injury in Adult Pancreatic Islets. Endocrinol. 138(4), 1750-1762 (1997).	
	AT	Finley, M.F.A. et al. Synapse Formation and Establishment of Neuronal Polarity by P19 Embryonic Carcinoma Cells and Embryonic Stem Cells. J. Neurosci. 16(3), 1056-1065 (1 Feb. 1996).	
	AU	Gaddy-Kurten, D. et al. Inhibition Suppresses and Activin Stimulates Osteoblastogenesis and Osteoclastogenesis in Murine Bone Marrow Cultures. Endocrinol. 143(1), 74-83 (2002).	
	AV	Githens, S. and Whelan, J.F. Isolation and Culture of Hamster Pancreatic Ducts. J. Tissue Culture Methods 8(3), 97-102 (1983).	
	AW	Githens, S. et al. Biochemical and Histochemical Characterization of Cultured Rat and Hamster Pancreatic Ducts. Pancreas 2(4), 427-438 (1987).	
	AX	Githens, S. The Pancreatic Duct Cell: Proliferative Capabilities, Specific Characteristics, Metaplasia, Isolation, and Culture. J. Ped. Gastroenterol. Nutr. 7, 486-506 (1988).	
	AY	Kaczorowski, D.J. et al. Glucose-responsive insulin-producing cells from stem cells. Diabetes Metab. Res. Rev. 18, 442-450 (2002).	
	AZ	Korbutt, G.S. et al. Islet Transplantation. Adv. Exp. Med. Biol. 426, 397-410 (1997).	
	BA	Lambillotte, C. et al. Direct Glucocorticoid Inhibition of Insulin Secretion. J. Clin. Invest. 99, 414-423 (1997).	
	BB	Lampeter, E.F. et al. Regeneration of Beta-cells in Response to Islet Inflammation. Exp. Clin. Endocrinol. 103, 74-78 (1995).	
	BC	Lumelsky, N. et al. Differentiation of Embryonic Stem Cells to Insulin-Secreting Structures Similar to Pancreatic Islets. Science 292, 1389-1394 (18 May 2001).	
	BD	Madsen, O.D. et al. Pancreatic development and maturation of the islet B cell Studies of pluripotent islet cultures. Eur. J. Biochem. 242, 435-445 (1996).	
	BE	Maldonado, T.S. et al. Ontogeny of Activin B and Follistatin in Developing Embryonic Mouse Pancreas: Implications for Lineage Selection. J. Gastrointest. Surg. 4, 269-275 (2000).	

Examiner Signature		Date Considered	
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<div>Substitute for form 1449A/B/PTO</div> <div>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</div> <div>(Use as many sheets as necessary)</div>				Complete if Known	
				Application Number	10/629933
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				First Named Inventor	Diana Clarke
				Art Unit	1645
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	ESCL-P01-124
Sheet	4	of	4		

	BW	Welt, C. et al. Activins, Inhibins, and Follistatins: From Endocrinology to Signaling. A Paradigm for the New Millennium. Exp. Biol. Med. 227, 724-752 (2002).	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

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